National Aeronautics and Space Administration

Earth System Science Pathfinder Program Office Executive Summary

Summer 2023

Recent project and investigation news and highlights:

(Please click on ***hyperlinks*** for more information)

- We've had a busy spring with 3 successful ESSP instrument launches!!!
  - TEMPO (Tropospheric Emissions: Monitoring Pollution) was ***launched*** from Cape Canaveral Space Force Station on April 7 by a Space-X Falcon 9 rocket. The TEMPO Principal Investigator is Kelly Chance (Smithsonian Astrophysical Observatory) and the project is managed out of NASA LaRC. Hosted on the Intelsat 40E satellite at 91° West in a Geostationary orbit, TEMPO is a UV-visible spectrometer that will provide daytime hourly observations of a suite of tropospheric air pollutants at a high spatial resolution, giving unprecedented insight into the temporal evolution of tropospheric ozone and its precursors, aerosols, and clouds across North America.
  - The pair of CubeSats for TROPICS-2 (Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of SmallSats) and the pair on TROPICS-3 were launched from Onenui Station in New Zealand by two Rocket Lab Electron rockets on ***May 7 GMT*** (Rocket Like A Hurricane) and ***May 26 GMT*** (Coming To A Storm Near You). These 4 CubeSats are equipped with passive microwave radiometers and will fly in constellation in order to provide temperature and humidity soundings and precipitation observations of rapidly evolving tropical storms at a revisit time of about 1 hour. The TROPICS Principal Investigator is Bill Blackwell (MIT Lincoln Lab).
- The 4th ESSP Program Forum is being held this summer on August 22-23 at the NASA Langley Research Center. We are eagerly anticipating two full days of productive discussions, lessons learned, and ample time to discover new synergies and collaborations. Contact Jennifer.R.Olson@nasa.gov for information.
- The EVS-3 investigation S-MODE (Sub-Mesoscale Ocean Dynamics Experiment) was featured on ***NBC's Today Show*** on May 5, including a fly-along by the Today Show's Jacob Soboroff.

Congratulations to PolSIR

The Polarized Submillimeter Ice-cloud Radiometer (PolSIR) project was recently announced as the EVI-6 selection and the newest addition to the ESSP portfolio! Dr. Ralf Bennartz (Vanderbilt University) is the Principal Investigator, and the Deputy PI is Dong Wu (NASA GSFC). PolSIR will study ice clouds in tropical and sub-tropical regions and how they impact the climate.

Congratulations to two DCOTSS team members for being awarded NASA's Exceptional Achievement Medals!!

Dan Chirca for exceptional management of the DCOTSS project

Rei Ueyama for exceptional achievement in leading the forecasting efforts for DCOTSS.